

WHAT IS CLAIMED IS:

1. A starter for cranking an internal combustion engine having a ring gear, the starter comprising:

an electric motor;

an output shaft driven by the electric motor;

a magnetic switch for driving a plunger by magnetic force generated therein, electric power supply to the electric motor being controlled in an on-and-off fashion in response to movement of the plunger;

a pinion gear movable in an axial direction of the starter;

a pinion-rotation-restricting member adapted to engage with the pinion gear to restrict rotation of the pinion gear; and

a crank bar driven by the plunger for bringing the pinion-rotation-restricting member into engagement with the pinion gear, thereby thrusting the pinion gear in the axial direction toward the ring gear of the internal combustion engine and establishing engagement between the pinion gear and the ring gear, wherein:

the crank bar is formed by connecting at least two portions separately made, a first portion and a second portion.

2. The starter as in claim 1, wherein:

the first portion and the second portion are firmly fixed to each other after both portions are coupled to each other.

3. The starter as in claim 1, wherein:

the first portion and the second portion of the crank bar are made of respectively different materials.

4. The starter as in claim 1, wherein:

at least either the first portion or the second portion of the crank bar is hardened by heat treatment.

5. The starter as in claim 1, wherein:

the first portion is a portion composed of a rod portion extending in an axial direction of the starter and an operating portion contacting the pinion-rotation-restricting member, the operating portion being bent from the rod portion; and

the second portion is a coupling portion coupled to the plunger of the magnetic switch.

6. The starter as in claim 1, wherein:

the first portion is a portion composed of a rod portion extending in an axial direction of the starter and a coupling portion coupled to the plunger of the magnetic switch, the coupling portion being bent from the rod portion; and

the second portion is an operating portion contacting the pinion-rotation-restricting member.

7. The starter as in claim 1, wherein:

the crank bar is formed by connecting three portions separately made, a first portion, a second portion and a third portion, the first portion being a rod portion extending in an axial direction of the starter, the second portion being a coupling portion coupled to the plunger of the magnetic switch, the third portion being an operating portion contacting the pinion-rotation-restricting member.

8. The starter as in claim 1, wherein:

the first portion and the second portion have respectively different cross-sections.

9. The starter as in claim 7, wherein:

the first portion, the second portion and the third portion have respectively different cross-sections.

10. The starter as in claim 1, wherein:

the pinion gear movable in the axial direction is coupled to the output shaft by means of a helical spline.